UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/963,239	11/03/97	GOUGH E	13724-787

EXAMINER
PEFFLEY,M

ART UNIT	PAPER NUMBER
3739	8

DATE MAILED: 01/12/99

PAUL DAVIS
WILSON SONSINI GOODRICH & ROSATI
650 PAGE MILL ROAD
PALO ALTO CA 94304-1050

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/963,239	Gough et al
Examiner	**Group Art Unit**
Michael Peffley	3739

☒ Responsive to communication(s) filed on *Dec 29, 1997*

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-44* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-44* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *6*

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Information Disclosure Statement

The information disclosure statement filed July 27, 1998 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. More specifically, specific references in the IDS have not been considered, which non-considered references have been provided with a line through the citation on the enclosed copy of the PTO 1449.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear if the energy source is being positively recited as part of the invention. It is noted that line 4 of claim 1 sets forth an antenna ablation device which is "configured to be

coupled to an electromagnetic energy source", which indicates the energy source is not to be positively recited as part of the invention. However, the last two lines of claim 1 positively connect a cable between the antenna device and the energy source thereby positively including the energy source as part of the claim. It is also noted that several of the dependent claims recite limitations which would require the energy source to be positively recited as part of the invention. The claims must be clarified to either positively recite the energy source in claim 1, or amend claim 1 and the dependent claims so as not to positively recite limitations of the energy source.

Claim 26 lacks proper antecedent basis for "the cooling medium", particularly in its dependency from claim 24 which fails to recite a cooling medium.

Claim Rejections - 35 USC § 102

Claims 1-5, 9-12, 15-19, 21, 22, 27-30 and 32-43 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over LeVeen et al ('276).

LeVeen et al disclose a device which comprises a trocar (502) and a multiple antenna ablation device (26) including three or more antennas (24) deployable from the trocar lumen in a lateral direction. Each of the antennas has an ablation surface, and the plurality of antennas are used to create an ablation volume of spheroid shape. The antennas are less rigid than the trocar, and the power range disclosed by LeVeen et al is within the range set forth by the applicant. Further, LeVeen et al teach that the device may be used in either a bipolar or a monopolar mode with the trocar serving as a possible return path.

The only feature not expressly taught by LeVeen et al is the energy delivery surface size which is "sufficient to create a volumetric ablation between the deployed antennas without impeding out a deployed antenna when 5-200 watts of electromagnetic energy is delivered". In as much as the LeVeen et al and the applicant's device appear very much similar, the examiner can see no reason why the LeVeen et al device would "impede out". More specifically, there is no specific disclosure in the applicant's specification of the particular size of the energy delivery surface which prevents this "impeding out" of the electrodes. Moreover, it appears one of ordinary skill in the art would obviously be capable of creating the proper energy surface area to prevent impeding out an antenna without undue experimentation. Finally, it is not clear that the LeVeen et al device would "impede out" an antenna if used within the suggested power range.

In conclusion, the examiner maintains that the LeVeen et al device discloses all the features set forth in the claim and would obviously, if not inherently, provide the same function of not impeding out an antenna when used within the suggested power ranges.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6-8, 31 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVeen et al ('276).

The LeVeen et al device has been addressed in the previous rejection. While LeVeen et al disclose the use of a trocar to introduce the multiple antenna ablation device, LeVeen et al fail to disclose the specific size of the trocar. The examiner maintains that use of any well known trocar size would have been an obvious design consideration dependent upon the particular procedure as well as the particular antenna device being used.

To have provided the LeVeen et al system with any well known sized trocar for the introduction of the antenna device would have been an obvious consideration for one of ordinary skill in the art.

Claims 20 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVeen et al ('276) in view of the teaching of Edwards et al ('675).

Again, the LeVeen et al device has been addressed previously. LeVeen et al fail to specifically disclose the use of a sensor located on an antenna, and also fail to disclose a lumen within the antenna for providing a cooling fluid.

Edwards et al provide a multiple antenna ablation device similar in nature to that disclose by LeVeen et al. In particular, Edwards et al teach that it is known to provide such a device with a sensor located on either the sheath (i.e. trocar) or the stylet (i.e. antenna) (see Abstract). Also,

Edwards et al teach that the antennas, or stylets, can be hollow for the provision of a fluid (i.e. cooling fluid). See column 7, lines 34-37).

To have provided the LeVeen et al device with a sensor to control the output of energy to the antennas would have been an obvious design consideration for one of ordinary skill in the art in view of the teaching of Edwards et al. It would have been a further obvious modification to have provided the LeVeen et al antennas with a hollow lumen for providing a cooling medium, particularly since Edwards et al teach that it is known to provide a multiple antenna device with lumens in the antennas for the provision of a cooling fluid.

Allowable Subject Matter

Claims 13 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art fails to disclose a multiple antenna ablation apparatus whereby the multiple antenna extend from holes in the side of the trocar instrument.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Behl discloses a multiple antenna ablation device similar to that disclosed by applicants.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Peffley whose telephone number is (703) 308-4305. The examiner can normally be reached on Monday through Thursday from 7:00 to 5:30.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0858.

Michael Peffley/mp
Primary Examiner
Art Unit 3739
January 6, 1999

MICHAEL PEFFLEY
PRIMARY EXAMINER
AU 3739